What is claimed is:

1. A low coherent reflectometer comprising:

a light source;

a branching element for branching beams output from the light source into measurement beams and local beams, wherein the measurement beams are introduced into a first optical path towards a measured optical circuit including a reflecting point, and the local beams are introduced into a second optical path including a spatial optical path;

a combining element for combining reflected measurement beams entering from the first optical path and reflected local beams entering from the second optical path; and

a compensator for compensating a difference between chromatic dispersions in the first optical path and the second optical path respectively.

2. A low coherent reflectometer according to claim 1, wherein the compensator comprises a dispersion shifted fiber, which is arranged within the first optical path.

3. A low coherent reflectometer according to claim 1, wherein the compensator comprises an adjuster for adjusting a value of a full width at half maximum in spectrum of the beams output from the light source.

4. A low coherent reflectometer according to claim 1, wherein the compensator comprises an optical bandpass filter for restricting the beams output from the light source into a prescribed range of wavelengths.

5. A low coherent reflectometer comprising:

a light source;

an optical coupler having four ports, wherein beams output from the light source are input to a first port and are branched to produce measurement beams and local beams respectively so that the measurement beams are output from a second port and the local beams are output from a third port, and wherein reflected measurement beams input to the second port and reflected local beams input to the third port are combined, so that combined beams are output from a fourth port;

a dispersion shifted fiber that is arranged within a first optical path between the second port of the optical coupler and a measured optical circuit including a reflecting point;

a reflector that is arranged to terminate a second optical path including a spatial optical path for propagation of the local beams; and

a received light signal processor for receiving and processing the combined beams output from the fourth port of the optical coupler.

6. A low coherent reflectometer according to claim 5, wherein a length of the dispersion shifted fiber is made substantially equal to a length of the spatial optical path.

7. A low coherent reflectometer according to claim 5, wherein the reflector comprises a collimator lens and a reflecting mirror which are spaced apart at a prescribed distance in the spatial optical path, and wherein the collimator lens converts the local beams parallel beams, which propagate towards and are then reflected by the

reflecting mirror.

8. A low coherent reflectometer comprising:

a light source;

an optical bandpass filter for adjusting a full width at half maximum in spectrum of beams output from the light source;

an optical coupler having four ports, wherein the beams transmitted through the optical bandpass filter are input to a first port and are then branched to produce measurement beams and local beams so that the measurement beams are output from a second port and are transmitted through a first optical path towards a measured optical circuit including a reflecting point and the local beams are output from a third port and are transmitted through a second optical path including a spatial optical path, and wherein reflected measurement beams input to the second port and reflected local beams input to the third port are combined, so that combined beams are output from a fourth port;

a reflector that is arranged to terminate the spatial optical path of the second optical path; and

a received light signal processor for receiving and processing the combined beams output from the fourth port of the optical coupler.

9. A low coherent reflectometer according to claim 8, wherein the reflector comprises a collimator lens and a reflecting mirror which are spaced apart at a prescribed distance in the spatial optical path, and wherein the collimator lens converts the local beams to parallel beams, which propagate towards and are then reflected by the reflecting mirror, so that the reflected local beams are subjected to convergence by

the collimator lens to produce converged beams, which are transmitted to the third port of the optical coupler.

10. A low coherent reflectometer according to claim 7 or 9, wherein the reflecting mirror is made movable along an optical axis to vary the distance between the collimator lens and the reflecting mirror.